

of schizophrenia who were continuously enrolled with pharmacy coverage for 12-months before treatment initiation. Patients with a diagnosis of bipolar, epilepsy or migraine were excluded. The AP cohort was identified by the first prescription fill with no prior use in previous 12-months. The combination therapy cohort (V+AP) was identified by the first prescription fill for V and an AP fill within 30 days. Multivariate survival analysis was used to follow patients to first adverse event or up to six years after index date to assess relative risk of adverse events. **RESULTS:** The study population included 1,348 patients treated with V+AP (female=52.6%, age=79.3 (\pm 6.9); history: liver disorder=5.9%, congestive heart failure=28.5%, peripheral arterial disease=32.2%) and 1,348 AP only patients (female=50.3%, age=79.1 (\pm 6.8); history: liver disorder=14.3%, congestive heart failure=27.9%, peripheral arterial disease=34.3%). Patients treated with AP only had a significantly lower risk of cerebrovascular disease (HR=0.65, 95% CI: 0.51-0.85, $p=0.01$) after controlling for potential confounders. Adding V did not increase risk of other outcomes evaluated. **CONCLUSIONS:** Clinical trials have failed to provide evidence of the efficacy of V as an adjunct therapy to AP to treat schizophrenia, but "off-label" prescribing of V+AP remains high. This study provides new evidence to inform prescribing practices in elderly patients with schizophrenia. The increased risk of stroke must be weighed against any incremental benefit to the patient that the addition of V may provide.

PMH2

ANTIPSYCHOTIC USE AND RISK OF PNEUMONIA IN ELDERLY NURSING HOME RESIDENTS: A PROPENSITY-MATCHED STUDY

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OBJECTIVES: Antipsychotic medications are extensively used in nursing homes for management of behavioral and psychiatric disorders in the elderly. Prior research suggests that pneumonia is one of the common causes of antipsychotic-related mortality in this population. None of the studies compared typical and atypical antipsychotics with respect to pneumonia. This study examined the risk of pneumonia with use of typical versus atypical antipsychotics in dual eligible elderly nursing home residents. **METHODS:** The study involved a retrospective cohort design matched on propensity score using Medicare and Medicaid Analytical eXtract (MAX) data from four US states. The study population included elderly dual eligible (Medicaid and Medicare) nursing home residents (aged > 65 years) who initiated antipsychotics anytime during July 1, 2001 and December 31, 2003. The risk of pneumonia during the 6-month follow-up period was modeled using Cox proportional model and extended Cox hazard model stratified on matched pairs based on propensity scores, using atypical agents as the reference category. **RESULTS:** Analysis of Medicaid-Medicare data revealed that there were 49,904 antipsychotic (46,293 atypical and 3,611 typical) users in the unmatched cohort and 7,218 (3,609 atypical and 3,609 typical) users in the matched cohort. The unadjusted rate of pneumonia was 8.17% (295) for atypical users and 5.21% (188) for typical users. The results of Cox regression [average Hazards Ratio, HR, 1.24; 95% CI, 0.94-1.64] and extended regression [<50 days: HR, 1.17; 0.83-1.66 and 50-180 days: HR, 1.36; 0.87-2.14] suggest that, there was no difference in risk of pneumonia among typical and atypical users. **CONCLUSIONS:** The study found no differential risk of pneumonia among typical versus atypical antipsychotic use in dual eligible nursing home residents. Given the differential risk of mortality with typical and atypical use in nursing homes, more research is needed to evaluate other contributory factors of mortality with respect to these two antipsychotic classes.

PMH3

RECURRENT STROKE RISK ASSOCIATED WITH ANTIDEPRESSANT USE IN POST-STROKE PATIENTS

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OBJECTIVES: Despite depression as the most frequent neuropsychiatric consequence of stroke, empirical safety evidence of antidepressant use in post-stroke patients is absent. This study aimed to assess the risk of recurrent stroke by antidepressant use among patients with first-ever stroke. **METHODS:** A nested case-control study was performed among patients with first stroke analyzing data extracted from the National Health Insurance Research Database between 01/01/2000 and 12/31/2008. Cases identified as patients with recurrent stroke were individually matched with up to two randomly-selected controls by age, sex, and cohort entry date using an incidence density sampling approach. Conditional logistic regression was employed to estimate the recurrent stroke risk associated with selective serotonin reuptake inhibitors (SSRIs), tricyclic antidepressants (TCAs) and "other antidepressants", as well as to assess the impact of dose, duration and recency of antidepressant therapy. **RESULTS:** The study cohort comprised 24,107 patients with first stroke, in which 4,415 cases were identified and matched to 8,294 randomly-selected controls. There was no statistically increased risk for any use of SSRIs (adjusted odds ratio [OR] = 0.99; 95% CI, 0.78-1.26), TCAs (adjusted OR = 1.12; 95% CI, 0.96-1.30), or "other antidepressants" (adjusted OR = 1.10; 95% CI, 0.90-1.34). The insignificant risk for SSRIs remained regardless of varying dose, duration and recency of the therapy. However, short-term use of TCAs (≤ 30 days), discontinued TCA therapy in the 1-30 days and 31-90 days preceding the index date was related to a 1.22-fold (95% CI, 1.01-1.49), 1.71-fold (95% CI, 1.18-2.48) and 1.50-fold (95% CI, 1.03-2.20) increased risk, respectively. The increased risk by use of "other antidepressants" was confined to short-term use (≤ 30 days; adjusted OR = 1.40; 95% CI, 1.07-1.81). **CONCLUSIONS:** Discontinued TCA therapy, short-term use of TCAs and "other antidepressants" all increase the recurrent stroke risk in post-stroke patients, which warrants clinical vigilance.

PMH4

EVALUATION OF CLINICAL AND TREATMENT CHARACTERISTICS AND THE ECONOMIC BURDEN OF ANXIETY IN VETERAN PATIENTS IN THE UNITED STATES

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OBJECTIVES: To assess the clinical and treatment characteristics as well as economic burden of anxiety patients in the U.S. veteran population. **METHODS:** A retrospective analysis was performed using the Veterans Health Administration (VHA) Medical SAS Datasets from October 1, 2005 to May 31, 2012. All U.S. veteran beneficiaries diagnosed with anxiety were identified using International Classification of Disease 9th Revision Clinical Modification (ICD-9-CM) diagnosis code 300.xx. Comorbid condition status was examined for the 12-month baseline period before disease identification, and treatment patterns were examined for the period between the disease identification date and 60 days after the identification date. Health care utilization and costs were measured in the 12-month follow-up period. **RESULTS:** A total of 687,325 patients were diagnosed with anxiety. Common comorbidities included hypertension (n=165,086, 24.02%), depressive disorder (n=99,736, 14.51%), post-traumatic stress disorder (n=92,514, 13.46%) and diabetes (n=89,041, 12.95%). The top treatments were simvastatin (n=139,001, 20.22%), citalopram hydrobromide (n=118,280, 17.21%), omeprazole (n=112,032, 16.30%), and lisinopril (n=103,489, 15.06%). Other available treatments were trazodone, sertraline hydrochloride, lorazepam, hydrochlorothiazide and aspirin. The numbers of anxiety patients with inpatient, outpatient and pharmacy visits were 136,109 (19.80%), 686,307 (99.85%) and 649,999 (94.57%), respectively, and related costs were \$6,586 (standard deviation [SD]=\$32,770), \$8,831 (SD=\$12,369) and \$1,576 (SD=\$10,109). **CONCLUSIONS:** U.S. veterans diagnosed with anxiety frequently experienced comorbidities such as hypertension, depressive disorder, post-traumatic stress disorder, and diabetes in the 1-year baseline period. Future treatment regimen choices may need to address anxiety within the context of these comorbidities.

PMH5

EFFECTIVENESS OF OLANZAPINE IN THE TREATMENT OF SYMPTOMATIC SCHIZOPHRENIA PATIENTS WHO SWITCHED FROM CONVENTIONAL ANTIPSYCHOTICS IN CHINA

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OBJECTIVES: To investigate the outcomes of patients with schizophrenia who lacked symptomatic treatment with conventional antipsychotics who were switched to olanzapine. **METHODS:** A post-hoc analysis was conducted on the China subgroup (n=475) of a multi-country, 12-month, prospective, non-interventional observational study. Outcome measures included: Brief Psychiatric Rating Scale (BPRS), Clinical Global Impressions-Severity (CGI-S), Abnormal Involuntary Movements Scale (AIMS) and the brief WHO-Quality of Life Scale (WHO-QoL-BREF). Mixed models for repeated measures controlling for baseline scores, gender, age, baseline weight, and investigator were used to assess outcomes. **RESULTS:** Mean baseline CGI-S was 5.02 (95% C.I.: 4.94, 5.11). Most patients responded to olanzapine - 97% (95% C.I.: 94%, 98%) defined as a reduction in BPRS total score at endpoint by $\geq 30\%$ relative to baseline. Significant improvements were observed in clinical status. LSmean change in BPRS total at month 12 from baseline was -33.3 (95% C.I.: -33.9, -32.8), and -3.4 for CGI-S (95% C.I.: -3.5, -3.3). Quality of life improved significantly for all domains of the WHO QoL-BREF. LSmean changes (improvements) from baseline to month 12 were: Physical 26.1(95% C.I.: 25.1, 27.2), Psychological 28.9 (95% C.I.: 27.6, 30.2), Social 26.1 (95% C.I.: 24.5, 27.6) and Environment 24.3 (95% C.I.: 23.0, 25.6). Mean olanzapine dose at endpoint was 7.6mg (range 2.5, 25.0mg). AIMS score decreased from 3.9 to 0.3 ($p<0.0001$) over the course of the study. Olanzapine treatment was associated with a mean weight gain of 4.2kg (95% C.I.: 3.8, 4.6), and 43% (95% C.I.: 38%, 48%) gained $\geq 7\%$ of their baseline weight over 12 months. **CONCLUSIONS:** This post-hoc analysis suggests that for patients from mainland China with schizophrenia who are still symptomatic, despite previous treatment with conventional antipsychotics, switching to olanzapine may result in additional benefits in terms of further improvement in symptoms and quality of life, and a reduction in abnormal involuntary movements.

PMH6

A DOUBLE-BLIND, PLACEBO-CONTROLLED, MULTICENTER TRIAL OF ADJUNCTIVE ARMODAFINIL FOR THE TREATMENT OF MAJOR DEPRESSION ASSOCIATED WITH BIPOLAR I DISORDER

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OBJECTIVES: The goal of this study was to evaluate the efficacy and safety of armodafinil as an adjunctive therapy for major depression associated with bipolar I disorder. **METHODS:** Patients 18-65 years of age with bipolar I disorder currently experiencing a major depressive episode while taking 1 or 2 mood stabilizer(s) and/or second-generation antipsychotics were randomized. The primary outcome was the mean change from baseline to week 8 in the 30-item Inventory of Depressive Symptomatology-Clinician-rated (IDS-C₃₀) total score. **RESULTS:** 433 patients were randomized (n=199 placebo, n=201 armodafinil 150 mg, n=33 armodafinil 200 mg). Randomization to the 200 mg armodafinil group